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ABSTRACT

This document consists of a final report and executive summary. The report is that of a project involving eight college and university faculty who were given the responsibility of developing new versions of introductory level geography courses. The plan of the project involved bringing together college or university professors, local school curriculum personnel, and inservice teachers to develop pilot courses in introductory geography for preservice teachers in eight states. The goal of the project was to design and structure a course that would deliver basic geographic content in ways that would match the needs of school teachers who were expected to teach geography as a part of their social studies assignment. Because there has been an effort to revitalize geographic education by stressing the five fundamental themes of geography, the project members suggested that college geography courses be revamped so that they, too, stress the five themes. The project first identified eight centers of excellence that had the elements thought to be necessary: (1) documented linkages with a local or nearby school district; (2) willingness to provide released time on a matching basis with the project for the faculty involved; (3) willingness to reorganize course content; and (4) agreement to serve as a regional center to disseminate materials. Centers are listed and a timetable describes the project's activities in chronological order. The means for evaluating syllabi is discussed. Evaluation shows that the plans are effective for the courses for which they were designed. How transferable they will be to other contexts remains to be seen. (DK)

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ED 405 232

Executive Summary

Improving Preservice Training in Geography for Middle School Teachers: A University/School Partnership

Association of American Geographers

1710 16th Street N.W.

Washington D.C.

20039

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EXECUTIVE SUMMARY

Improving Pre-Service Training in Geography for Middle School Teachers: a University/School Partnership

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Project overview:

This project involved 8 college and university faculty (center directors), who were given the responsibility of developing new versions of introductory level geography courses. These course were to be developed in collaboration with in-service teachers. The college faculty were to be the content experts, and the teachers were to help the faculty devise ways to structure a course that would deliver the basic geographic content in ways that would match the needs of school teachers who were expected to teach geography as a part of their social studies assignment. The Faculty were asked to develop a course syllabus and test it for two years. The courses were to be evaluated both by the students doing the work and by a test of the students who took geography from graduates of the new courses. using that information, the faculty were expected to revamp the course and produce one of 8 model introductory courses reflecting a variety of institutional settings.

It was thought that these courses would be developed with the pre-service teacher in mind. In many instances social studies teachers take only one geography course in the training program. Unfortunately that course may not cover the material social studies teachers are expected to teach in their schools' geography offerings. Because there has been an effort to revitalize geographic education by stressing the five fundamental themes of geography, we believed it was necessary to revamp college geography courses so they too stressed the five themes. We know that most college faculty members are reluctant to change their courses, so our plan was to develop 8 new versions of introductory courses so that instructors around the county could learn of alternatives to the standard textbooks in college geography. In addition, we hoped we could convince them to structure their courses in ways that would maximize their utility for teachers.

The final report or publication of the project contains the course outlines of the best of the courses developed, as well as a comprehensive review of the evaluation process developed for this project.

Purpose:

Although a great deal of media coverage has been devoted to the problem of geographic illiteracy in the United States, very few programs have been developed to get at the root of the problem - lack of good geography courses in the Nation's schools which results from teachers poorly trained to teach the subject matter. This project was designed to find a way to address the root cause. It was felt that if the college introductory geography course could be imported and refocused on the teachers' needs, it would eventually be possible to have the newly trained teachers develop courses for their students that would be more effective. If those courses were more effective, than the students taking them would not be geographic illiterates. In essence we hope to take the first major step toward the better training of the future cadre of teachers. Today we are even more convinced that we had formulated the problem correctly. In fact, our experience has shown that the training of pre-service teachers is an even greater problem than we had imagined. We found that while we understood the problem well enough, we did not develop a strong enough administration.

Background and Origins:

This project was developed by Dr. Salvador Natoli, former education specialist at the AAG. He had been instrumental in developing several initiatives in geographic education that were based on the assumption that a combination of collegiate and university based geographers working with teachers is necessary for any real improvement in geographic education. This project was based on the knowledge that most teachers have taken only the minimum Number of courses required for certification. Because minimum requirements include only one, or in some states two geography courses; concerned geographers have known for decades that the teaching corps is expected to teach content most teachers have not mastered. To further compound the problem, introductory geography courses take many forms, not all of which meet the needs of future teachers. This problem is part of a methodological debate within the discipline. Some argue that the first course should be a World Regional Course which introduces students to the major divisions of the earth's surface. Others argue that introductory courses should be thematic and structured around the major research themes in the discipline. the later courses make no effort to introduce students to all the major portions of the earth. A future teacher taking a thematic course will have trouble developing the standard secondary geography course, but the latter is essentially always organized around regions. The course may be world regional or focus in on one of the hemispheres. The are, as far as we know, never thematic. Thus, our basic problem: How to make an introductory course in geography fit the needs of the future teachers and the general education or social science requirements of the institution, as well as be an effective introduction to the research themes of the discipline.

We hoped to create new courses in eight different states that would reflect a range of institutional settings, state requirements, and the needs of the discipline. We assumed that no single teacher could come up with a course that would fit all contexts, and we assumed that we had enough diversity in our set to cover most eventualities. Because we wanted to maximize the creativity of our faculty and consulting teachers, we did not set out strict guidelines for the course. The leadership group did not presume it had the solution to the problem.

Project Description:

Dr. Natoli selected the eight center directors through personal contacts and telephone interviews. Major criteria for selection were the presence of strong support for the project in local school districts, and for the local institution to have shown evidence of commitment to geography in the past. As the grant was being evaluated by FIPSE Dr. Natoli left AAG and took a position with the National Council for the Social Studies. His place was taken by Dr. David Lanegran, then Treasurer and National Councilor of the AAG. The key personal remained unchanged. Dr. Ruth Shirey and Dr. Richard Boehm, who together with Dr. Natoli had conceptualized the project, remained as Directors. The AAG continued to provide staff support for the project.

The eight center directors were assembled at a meeting of the National Council for Social Studies, and the nature of their tasks was outlined. At that time is was realized that the funds available within the grant were not adequate to accomplished the goal. Therefore, it was necessary for each project director to seek out either a great amount of local institutional support, funds charging tuition to the experimental courses, or outside funding. Several center directors received grants from the national Geographic Society. Had these grants not materialized, the project surely would have failed.

For two years the eight center directors offered courses. There was indeed a wide range of setting utilized. Some courses were called geography for teachers and were taught at the graduate level. Other were taught as part of summer institutes for inservice teachers. In some cases, the courses were offered during the regular school year as part of the on going departmental offerings. In sum, we were able to get the great institutional diversity we had hoped for. Dr. Joseph Stoltman developed an excellent evaluation process that was used to varying degrees by each of center directors. In addition, site visits were made to each of the centers by the project directors.

After two years of experience, and review of their evaluations, each center director was asked to produce a copy of their course syllabi for publication in the project's handbook. This handbook was edited by Ruth Shirey and her Associate Dr. Joseph Bencloski. It will be distributed to directors of NGS summer institutes and other Leaders of the National Geographic Society's Alliance for Geographic Education.

Project Results:

The handbook, with suggestions for introductory courses in geography, has been prepared and will be distributed through the alliance network. Some of these courses are reflective of the needs of future teachers in that they are organized around the five fundamental themes of geography and cover the major regions of the world. Others are not very creative and seem to be heavily dependent on the structures of major textbooks. It is too early to see if these materials will have an impact on the way geography is actually taught in colleges and universities in the United States.

Conclusion:

At least another two years of development is needed for these courses to really prove to be innovative. In addition, a set of institutes for trainers of teachers should be developed to help diffuse the insights contained in these course outlines.

FINAL REPORT

IMPROVING PRE-SERVICE TRAINING IN GEOGRAPHY FOR MIDDLE SCHOOL TEACHERS; A UNIVERSITY/SCHOOL PARTNERSHIP

BACKGROUND

This project attempted to mitigate the problem of geographic ignorance of the American public as it was described in the Guidelines for Geographic Education. The plan involved bringing together college/university professors, local school curriculum personnel, and in-service teachers to develop pilot courses in introductory geography courses for pre-service teachers in 8 states. Geographical illiteracy is not a new problem, and is well documented in the geographical and educational literature. Only recently has public awareness of this problems grown. The heightened understanding of the problems of geographic illiteracy has resulted in large measure from the work of the National Geographic Society, which commissioned the Gallup Poll Corporation to survey the American public and citizens of other countries. These scientifically designed polls left no doubt about degree of geographic illiteracy in the United States. The polls do not, however, indicate what has caused this state of affairs, nor do they tell us how to solve the problem.

Over the years, geography's status in schools, colleges and universities has waxed and waned, typically waxing during periods of national crisis. This pattern can be seen in recent decades as well. In the 1980's, for example, though it would appear that no international crises threatened the security of the United States; since 1970 the leadership position once enjoyed by the United States in the immediate post-War period has been repeatedly challenged. Americans have engaged in direct combat in Viet Nam and Latin America,

However, challenges have come from our miliary allies as well. Japanese banks now dominate the world financial system. American manufacturing has lost ground to production centers in Asia, and the dramatic changes in Europe's economy all add to the pressures on the American leadership position. It has been argued by the President's Commission of Foreign Language and International Studies (1979) that this decline in prestige is in large part due to the nation's failure to recognize the importance of international knowledge in our school and college curriculum. Geography has not been and is not today as central to the internationalization of the curriculum as it deserves to be. It's powerful concepts of the relationships between humans and the environment, and the ways through which parts of the world are interconnected are integral to an understanding of the way the world works. In addition, the use of cartography to locate and analyze places sets the discipline in the forefront of spatial analysis. These organizing concepts have gradually disappeared as identifiable components in the pre-college and college curriculum, Geographical knowledge, like other knowledge, is not gained by infrequent exposures at widely spaced levels in the curriculum. It is knowledge gained only by reiteration, reinforcement, and engagement at increasing levels of sophistication, and covering broader areas of the earth at every level in the curriculum.

In a student's ordinary sequence of exposure to the world in elementary school, the spatial curriculum begins with the home and expands outward. By middle school, students are vicariously exploring the world beyond the bounds of our Nation. Yet much of this is accomplished with the benefit of systematic instruction in geography. Surveys have indicated that since the 1960's, rapidly diminishing percentages of elementary and middle school teachers are required to study geography in the liberal arts concentration, and they geography at this level has suffered. The southern Governors' Association Advisory Council

on International Education (1980) reported that 71% of students in a major southern university had not had an identifiable geography course in elementary school and 73% had had none in their high school.

To make this problem worse, it is well known that in the last decade most college geography professors have had only minimal contact with pre-service middle-school teachers. The middle-school curriculum in geography has shaped without professional geography's involvement. Yet it is in the middle school, particularly grades 1-8 where geography has had its traditional strengths.

The project set out to begin to correct these problems, but we faced a major constraint. There are extensive course requirements for future teachers already in place. It is unlikely that many schools will require their certifying teachers to take more geography no matter how compelling our arguments. Instead of attempting to add courses to the requirements; we chose to strengthen the existing requirements by improving the geography course the pre-service teachers were already taking. The plan was to make the existing courses better and also enable them to address the content sequence in the school curriculum. This way geography components of the social studies and the geography courses in the middle schools should be strengthened. Further such exposure might motivate the future teachers to take more geography courses.

Project description

The procedures and chronology for the project were as follows:

April 1987- the project identified eight "Centers of Excellence" at colleges and universities in eight states that had the elements thought to be necessary for Centers of

Excellence. (At least 20 institutions were thought to be qualified)

a. documented linkages with a local or nearby school district;

b. willingness to provide released time (one course for one semester for two academic years), on a matching basis with the project for the faculty involved in the project;

c. willingness to reorganize course content in a pilot course for in-service teachers to be offered during the summers of 1988 and 1989;

d. agreement to serve as a state or regional center to disseminate materials and procedures on the project to other university/school district partnerships in the state or region.

The eight Centers of Excellence are

Department of Geography, University of North Alabama, Florence Alabama

Department of Geography, Salem State College, Salem Massachusetts;

Department of Geography, Macalester College, St. Paul Minnesota;

Department of Geography, East Carolina University, Greenville North Carolina;

Department of Geography, Kutztown University of Penn. Kutztown, Pennsylvania;

Department of Geography, SOuthwest Texas STate University , San Marcos, Texas;

Department of History and Geography, Utah State University Logan Utah;

Program in Geography, Department of Public Affairs, George Mason University, Fairfax Virginia

The colleges and universities selected represent a broad spectrum of institutional types as well as institutional capabilities for achieving the project goal. Each institution has engaged in a number of outreach activities to improve geographic education. Each had

demonstrated leadership capabilities to disseminate within their state and region the materials and ideas generated from this project.

October 23 1987 - The project directors and center directors meet at the NCGE Meeting in Springfield Mo. That meeting established the basic administration of the project. Lanegran was the project director with primary duties of fiscal management, liaison with AAG Council, GENIP and FIPSE. Richard Boehm served as Project Coordinator and took responsibity for changes in the structure of the project and commenting on the effectiveness of the various centers. Dr. Ruth Shirey was to serve as strategic planner for the project and over see the editing and dissemination of the final handbook. AAG staff Chris Dando was to have day-to-day responsibilities for the grant under the supervision of AAG Executive Director Robert Aangeenbrug. Dando would later be replaced by Rainman and eventually Osa Brand. Dr. Joseph Stoltman was to be the evaluator. At that meeting it was learned that the NGS summer institutes could be combined with the FIPSE course projects if the Center Directors followed NGS grant application procedures. This made it possible for most of the projects to go forward. Prior to that meeting the project was in doubt because many center directors indicated they would not be able to enroll enough in-service teachers in the summer courses to make the experience meaningful.

November, December and January (1987-88) Center Directors developed their syllabi and advertised their classes. Dr. Ruth Shirey organized an extensive publicity program to inform the profession of the Project's potential for education reform and to invite interested individuals to become involved in the diffusion phase of the project. In March she contacted

every geography department listed in Schwenddeman's Directory of College Geography in the United States. Thus every geographer interested in geographic education was informed of the project.

March, April and May 1988- Center Directors continued to promote their courses and some worked with local curriculum specialists to hone their syllabi. In April it was determined to add another person to the leadership team because Dr. Shirey's university duties would take her to India for part of the summer of 1988. Therefore, her colleague Dr. Joseph Bencloski took on some of the coordination tasks. This staff change was approved by FIPSE in April.

June-August 1988. Center Directors offered their courses for the first time. Courses were evaluated by both FIPSE devises, and, in most cases, by the National Geographic Society evaluation process as well. The courses all carried college credits. Inservice teachers received graduate credit, and in several centers undergraduate students participated for undergraduate credit. The enrollment of in-service teachers varied considerably from center to center. For example, the smallest course enrolled six students while the largest had thirty. Despite the variations in enrollment, the project as a whole had a critical mass of in-service teachers to properly evaluate the diverse classes. The collaboration between the FIPSE project and the National Geographic Society's Summer Institutes worked very well. These two projects had different but complementary objectives. NGS has the goal of training teachers to conduct in-service training workshops, while our goal is to develop a new set of undergraduate courses. Each institute was visited by one of the project's national staff. Dr. Stoltman's evaluation devise was used in each center to see how much content the participants in the courses mastered. This evaluation consisted of both pre and post tests

based on tests of "What every student should know about Geography".

August and September 1988 Center Directors evaluated their course outlines and student evaluations of their course. Dr. Shirey identified a network of geographers within each center state to help with the evaluation and diffusion process and started an outreach program to other states.

October 1988. A meeting of Project and Center Directors was held at the NCGE meetings in Snowbird Utah. In addition Center Directors made plans to report on their projects at Regional professional meetings.

February 1989 Center Directors made plans for course revisions and publicity for their next course offerings.

March 1989 Center and Project directors meet at the AAG Annual Meeting in Baltimore to discuss administrative issues of the just completed evaluation by Stoltman. All center Directors accepted the standard format for their syllabi and all major logistical issues were resolved. The evaluation process pointed out that there was a tremendous range in the degree to which course participants were able to master the geographic content expected of them. It was also determined that the final report would be a set of comparable syllabi with addition text by Shirey and Stoltman

April - May 1989 Recruitment of in-service teachers for second course offering carried out, center directors made final arrangements for their course.

June - July 1989 Courses offered in all centers. Center Directors administered evaluations and were visited by project directors. The comments of the project directors were sent to Stoltman for review.

September and October 1989 Center Directors incorporated the evaluation's results into their revision of the summer course and developed a new course to be used for pre-service teachers in the their home institutions during the 1989-90 academic year.

October 1989 Center and Project Directors meet to discuss the state of the course evaluations documents at the NCGE annual meeting in Heresy Pennsylvania. An outline of the final report was prepared by Dr. Shirey and discussed by project personnel at that meeting.

November 1989- June 1990 Dr. Shirey assembled the various course syllabi and local strategies used at the centers and began to develop the Resources Guide or Handbook for use at all colleges and universities in the United States.

August September 1990 The Handbook prepared for each department of geography in the Nation (approximately 370). An announcement of its availability will be made in Department Chairs Newsletter of the AAG, and the general Newsletters of the AAG and NCGE. Additional copies will be made available to interested faculty. First phase of distribution is to occur at NCGE meetings in Williamsburg November 8-11 1990. Second phase will be at AAG Meetings April 1991 in Miami. Faculty may obtain copies by contacting Dr. Osa Brand, Education affairs Director at AAG Headquarters.

Evaluation of Syllabi:

Because the focus of this project was to produce a set of syllabi, it was important to have an effective evaluation procedure. Fortunately Dr. Stoltman was a part of the team and he developed a through evaluation process. That process is detailed in Chapter Two of the project's publication (title needed) What follows is an abridgement of his longer

report.

A carefully designed formative evaluation procedure was developed to guide the development of the courses. The syllabi were evaluated regularly from the perspectives of standards, the content, skills and values from the discipline and student views of the syllabi as learning resources. Feedback about the different aspects of the syllabi development was provided to the faculty members throughout the development process.

The evaluation of the FIPSE project is driven by one central question. "What constitutes an acceptable syllabus from which to teach an introductory geography course for general education and pre-service teachers education students?" Hidden within the rather basic question were considerations regarding the geographic content of the syllabus, the intent of the course as communicated to the students by the syllabus, and the implicit agreement between the faculty member and student using the syllabus.

A formative evaluation was designed to make improvement in the syllabi while it was undergoing development. The evaluation incorporated a variety of methods. These included: published materials search; information and interviews; group profiles; student testing; and comparisons of data about the students in FIPSE Project courses and reference groups of students.

It was decided that faculty members designing the FIPSE Project syllabi would require the following types of information if the Project was to have a discipline wide, national impact upon the improvement of post-secondary eduction.

1) A comparison of the syllabi being designed to a standard of syllabi design;

2) Characteristics of the students enrolled in courses where the syllabi were being developed; and

3) An assessment of the interactions between students and the syllabi, including content, skills, and values relative to the five fundamental themes of geography.

The first requirement necessitated reviewing the literature about syllabus design in order to identify a recognized standard. The second required that a questionnaire or survey be administered that would provide the faculty members with information about the students enrolled in their courses. This information was deemed important because the syllabi were to be used in a general or liberal education setting. It was important to know if personal characteristics of the students using the syllabi were similar to students in general. Third, it was important that the newly designed syllabi address discipline based questions about the content, skills and values of geography. An evaluation component that combined the five fundamental themes with the content, skills, and values of geography was deemed necessary if decisions regarding the inclusion and exclusion of content in the syllabi were to be made with confidence. It was believed important to provide both quantitative and qualitative data that could be readily used by the faculty members designing the course syllabi.

The course syllabi is the most basic way that faculty members participate in curriculum development. The literature devoted to the content and design of syllabi falls mailing into the descriptive and reflective. There are published articles that describe different types of syllabi and there are articles that reflect upon the necessity for a syllabus in each course, as well as on the merits of organizing syllabi in particular formats. Until recently, there has been relatively little formal research on the design of syllabi, and the effect of syllabus design on the students in a course.

One element of the evaluation for the FIPSE Project was to compare the syllabi developed with a standard for syllabus design. Only one guide providing a systematic, analytical approach to the design of syllabi was found. The guide presented a checklist and brief discussion of ten key elements of a course syllabus.

There are a large number of survey instruments available that permit the collection of data used in developing a profile of classes and comparing that profile to a large, research based sample of students. The FIPSE survey instrument provided a profile of the students relative to geography and to teaching in post-secondary education. The survey data were useful for selecting content, topics, and issues for consideration in the courses syllabi being developed.

The content, skills and values to be included in the geography courses represented by the syllabi was the third major concern of the evaluation process. There were two major aspects of contents selection:

1) the extent to which content, skills and values reflecting the discipline of geography exerted an influence over course syllabus design; and

2) the integration of the five fundamental themes of geography within the syllabus. Establishing a baseline expectation for incoming students who were to use the newly designed course syllabi was an important consideration. If students had little knowledge of the content to be addressed in a course, the syllabus design must generally reflect that condition. However, if the students have a basic foundation in the content, the syllabus may move immediately to more high-order considerations of the content. Therefore, it was important to ascertain what knowledge of geography the students possessed.

Basic knowledge in geography is interpreted differently by different scholars in the field. Testing format, validity, reliability, and the effects of prior educational experience each adds a dimension to the assessment of basic knowledge students have of the discipline. It was judged important to select an instrument for measuring knowledge that had undergone a rigorous development process. A prototype instrument had been developed by Educational Testing Services (ETS) for use in the research study entitled What College Students Know and Believe about their World (Barrows et al., 1981). The instrument developed for the ETS project included questions covering geographic information, charts, and maps. Normative data about incoming first year and exiting final year university students in the United States had been reported using both composite and individual item results. The instrument was suitable for a geographic content analysis, and the prior research provided data to compare the scores of the FIPSE Project students to the normative group. The Geographic Information Survey was designed from the ETS instrument and administrated to the FIPSE Project participants.

Participants were also given the Secondary School Geography Competence Test developed by the National Council for Geographic Education. Although never normed using a randomly selected sample of students, this is an important test to use because it represents the best available measure of what professional geographers believe secondary students should know.

In order to get student feedback on the syllabi, site visits were conducted and students were interviewed using a protocol developed by Dr. Stoltman. During the second year students were surveyed and asked to respond with their evaluations of the syllabi.

The data from the administration of instruments, surveys, and the results of site visits and telephone interviews were processed and interpreted. Suggestions and comments by the evaluator were prepared and returned to the directors of the centers.

There were no general distributions of data between centers, and comparisons were not made between or among centers: data were forwarded only to the center form which they were submitted. There were several considerations underlying the decision not to directly compare centers. First, there was considerable variation in the course development procedure from center to center. This was viewed as positive since the syllabi were not intended to have similarities beyond the discipline of geography and the five fundamental themes. Second, the range of background for students who participated in the courses was great. Therefore it was judged that comparisons of the data between and among centers would not provide meaningful information. The center directors were left to their own judgement rather or not to incorporate the evaluation suggestions or interpretations of the data in redesigning their syllabus.

Two aspects of the evaluation appear to be pertinent to the FIPSE Project in general. These are the interpretations of data from the Course Planning Exploration, and the Syllabus Survey. Data from the Course Planning Exploration suggested that faculty related influences in the design of the course syllabi were principally in the areas of subject-matter discipline, beliefs about the purposes of education and faculty members' backgrounds.

First, the faculty members' academic discipline, geography, exerted the strongest influence in planning the syllabus at each of the centers. The directors viewed geography as an organized field of knowledge and a set of skills These should be made clear in the

syllabus. They also stated that the content of their syllabus was selected based upon its importance to effective thinking, and to foster the students' intellectual and personal growth.

The Syllabus Survey was designed so that students could react to the usefulness of the syllabus and the way it helped them prepare and progress through the course. The syllabi received an important or essential rating a high proportion of times by the students in the classes. The data suggest that the syllabus design followed by the center directors resulted in syllabi that were useable and informative in the hands of students. The syllabi reflect the unique aspects of the different faculty members, and to a lesser extent the characteristics of the institution and student clientele. They incorporate the fundamental themes of geography education that are important to the education of both general and teacher education students attending colleges and universities.

Conclusions

Unfortunately we do not know if these eight courses will be more effective trainers of future teachers than other courses. Some directors made great efforts to link their courses to the social studies and geography courses mandated by their state department of education. In other cases there was little effort to develop a tight connection between the course and state patterns of education. While some of the courses made extensive use of the fundamental themes of geography in the organization of their content, other faculty members followed the organization of the table of contents in popular regional geography textbooks.

The greatest criticism of this project was the lack of a control group. In order to properly evaluate the outcome of the eight courses, we should have developed pre and post

tests of material important to middle school teachers and administered those tests to students in wide range of introductory classes. We then could have made comparisons on the degree of change the FIPSE syllabi produced.

Our evaluation of the syllabi shows that they are good for the courses for which they were designed. We do not know how transferable they will be to other contexts. While we cannot measure that transferability, it is obvious that they conform to recognized standard for syllabi and should be accessible to all faculty across the country.

This project succeeded because it produced a set of organizational systems for courses that were intended to help future middle school teachers be more effective geography instructors. Therefore, anyone wishing to modify an introductory course toward that objective has some tested models to use. Our next step is to determine a way to help would-be adapters effectively use the materials produced by the project.

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FIPSE- CONSOLIDATION--BUDGET VS EXPENSES 09/87-08/90

DESCRIPTION	SALARIES	FRINGE BENEFITS	TRAVEL	SUPPLIES POSTAGE,COPYING PRING.TELEPHONE	CONSULTING	INDIRECT COSTS	TOTAL
AUTHORIZED BUDGET:							
YEAR 1	10,584.00	2,228.00	16,182.00	5,600.00	58,000.00	7,408.00	100,002.00
YEAR 2	11,080.00	1,828.00	10,285.00	5,500.00	61,000.00	7,375.00	97,068.00
YEAR 3	11,840.00	0.00	6,118.00	5,750.00	22,500.00	3,697.00	49,905.00
TOTAL BUDGET	33,504.00	4,056.00	32,585.00	16,850.00	141,500.00	18,480.00	246,975.00
EXPENSES:							
YEAR 1 09/87-08/88	12,551.75	260.24	11,102.36	2,527.63	55,966.99	6,463.32	88,872.29
YEAR 2 09/88-12/88	2,833.33	0.00	2,091.11	237.07	4,333.00	759.56	10,254.07
YR 2&3 01/89-12/89	10,785.98	2,898.29	11,977.65	8,517.83	52,567.00	6,907.74	93,654.49
YEAR 3 01/90-08/90	11,712.30	3,157.27	1,570.23	5,902.30	27,842.00	4,014.72	54,198.82
TOTAL EXPENSES	37,883.36	6,315.80	26,741.35	17,184.83	140,708.99	18,145.34	246,979.67
BUDGET VARIANCE	(4,379.36)	(2,259.80)	5,843.65	(334.83)	791.01	334.66	(4.67)

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